WHAT IS CLAIMED IS:

1. A focus control apparatus for controlling focus of a laser beam emitted to reproduce information onto an optical disk in which a plurality of recording layers are formed on the basis of a focus error signal indicative of a deviation amount of said laser beam from a focus state in any of said recording layers, comprising:

jump signal applying means, at the time of making said laser beam to be emitted focus-jump from a recording layer to another recording layer, for applying a brake signal for making a focus jump to a drive signal for controlling driving of light emitting means which is preliminarily provided to emit said laser beam; and

timing setting means for variably setting a timing of applying said brake signal by said jump signal applying means on the basis of level of said focus error signal of said recording layer as an object of the focus jump.

2. The focus control apparatus according to claim 1, wherein

said timing setting means includes:

level determining means for determining whether the level of said focus error signal of said recording layer as an object of a focus jump reaches level specifying the timing of said focus jump or not; and

level varying means for lowering said specification level in accordance with determination made by said level determining means that the level of said focus error signal does not reach said specification level, and

when it is determined by said level determining means that the level of said focus error signal reaches said specification level, said brake signal is applied by said jump signal applying means.

3. The focus control apparatus according to claim 2, wherein

said brake signal includes an acceleration pulse signal for starting acceleration regarding the focus jump and a deceleration pulse signal for starting deceleration to be applied within a specific time-out period after

application of said acceleration pulse signal, and

said level determining means determines whether the level of said focus error signal reaches said specification level within said specific time-out period or not.

4. The focus control apparatus according to claim 3, wherein

said specific time-out period is set on the basis of a period in which said another recording layer as a destination of the jump can be irradiated with said laser beam.

5. An optical disk drive comprising:

a focus controller for controlling focus of a laser beam emitted to reproduce information onto an optical disk in which a plurality of recording layers are formed on the basis of a focus error signal indicative of a deviation amount from a focus state in any of said recording layers of said laser beam; and

light irradiating means for irradiating said optical disk with said laser beam, wherein

said focus controller includes:

jump signal applying means, at the time of allowing said laser beam emitted to make a focus jump from a recording layer to another recording layer, for applying a brake signal for making the focus jump to a drive signal for controlling driving of said light emitting means; and

timing setting means for variably setting a timing of applying said brake signal by said jump signal applying means on the basis of level of said focus error signal of said recording layer as an object of the focus jump.

6. A focus control method for controlling focus of a laser beam emitted to reproduce information onto an optical disk in which a plurality of recording layers are formed on the basis of a focus error signal indicative of a deviation amount from a focus state in any of said recording layers of said laser beam, comprising:

a jump signal applying step of, at the time of allowing said laser

beam emitted to make a focus jump from a recording layer to another recording layer, applying a brake signal for the focus jump to a drive signal for controlling driving of a light emitting device which is preliminarily provided to emit said laser beam; and

a timing setting step of variably setting a timing of applying said brake signal by said jump signal applying step on the basis of level of said focus error signal of said recording layer as an object of the focus jump.

7. The focus control method according to claim 6, wherein

said timing setting step includes:

a level determining step of determining whether the level of said focus error signal of said recording layer as an object of the focus jump reaches level specifying the timing of said focus jump or not; and

a level varying step of lowering said specification level in accordance with determination made in said level determining step that the level of said focus error signal does not reach said specification level, and

when it is determined by said level determining step that the level of said focus error signal reaches said specification level, said brake signal is applied by said jump signal applying step.

8. The focus control method according to claim 7, wherein

said brake signal includes an acceleration pulse signal for starting acceleration regarding the focus jump and a deceleration pulse signal for starting deceleration to be applied within a specific time-out period after application of said acceleration pulse signal, and

said level determining step determines whether the level of said focus error signal reaches said specification level within said specific time-out period or not.

9. The focus control method according to claim 8, wherein

said specific time-out period is set on the basis of a period in which said another recording layer as a destination of the jump can be irradiated with said laser beam.